

**METHOD AND SYSTEM FOR A GRAPHICAL  
REAL TIME FLOW TASK SCHEDULER**

Abstract of the Disclosure

A system and method of creating and using a graphical task scheduler. A Graphical User  
5 Interface (GUI) allows a user to graphically build a real time flow task scheduler by providing a  
“click & drag” functional palette which contains graphical flow chart elements. By creating this  
graphical flow chart, the user is able to associate a plant layout, or any subpart of the entire plant,  
to its associated mathematical model. With a graphical flow chart, the user can define one or  
more exit branches for each task. For tasks with more than one exit branch, the user can specify  
the conditions causing the sequence to use each branch. Once the flow chart is set up, it can be  
used as a sequence editor or scheduler. The sequence editor defines the sequence of tasks that  
will be performed by an on-line application, such as optimization, and also allows scheduling of  
the on-line application at specific times or periodic intervals. The scheduler controls the running  
of each sequence based on the scheduling information. Once a plant has been optimized by the  
15 graphical task scheduler, the optimized data may be used to control plant operations.